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RPTO/SB/21 (08-00)

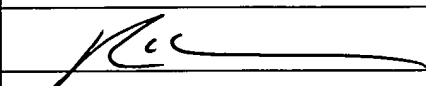
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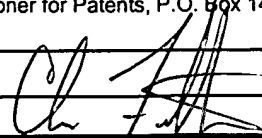
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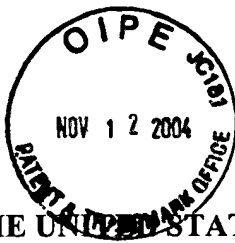
TRANSMITTAL FORM (to be used for all correspondence after initial filing) NOV 12 2004 U.S. PATENT & TRADEMARK OFFICE	Application Number	10/820,975	
	Filing Date	April 7, 2004	
	First Named Inventor	Santi	
	Group Art Unit	Unassigned	
	Examiner Name	Unassigned	
Total Number of Pages in This Submission	6	Attorney Docket Number	020547-003700US

ENCLOSURES (check all that apply)		
<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment / Response <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/ Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Assignment Papers (for an Application) <input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition Routing Slip (PTO/SB/69) and Accompanying Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s)	<input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): 1) Return receipt postcard 2) Twenty-nine (29) references
Remarks		The Commissioner is authorized to charge any additional fees to Deposit Account 20-1430. Total number of pages <u>does not</u> include cited references.

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
Firm and Individual name	Townsend and Townsend and Crew LLP Randolph Ted Apple Reg No. 36,429
Signature	
Date	November 9, 2004

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Typed or printed name	Christopher R. Fitting		
Signature		Date	November 9, 2004

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PATENT
Attorney Docket No.: 020547-003700US
Client Reference No.: 010110.00

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Santi et al.

Application No.: 10/820,975

Filed: April 7, 2004

For: SYNTHETIC GENES

Examiner: Unassigned

Art Unit: Unassigned

INFORMATION DISCLOSURE
STATEMENT UNDER 37 CFR §1.97 and
§1.98

Commissioner for Patents
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Sir:


The references cited on the attached PTO/SB/08A and PTO/SB/08B forms are being called to the attention of the Examiner. Copies of the non US patent references are enclosed. It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

As provided for by 37 CFR 1.97(g) and (h), no representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information, and no inference should be made that the information and references cited are, or are considered to be material to patentability because they are in this statement. No inference should be made that the information and references cited are prior art merely because they are in this statement.

Applicant believes that no fee is required for submission of this statement.

However, if a fee is required, the Commissioner is authorized to deduct such fee from the undersigned's Deposit Account No. 20-1430. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,



Randolph Ted Apple
Reg. No. 36,429

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Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Complete if Known	
				Application Number	10/820,975
				Filing Date	April 7, 2004
				First Named Inventor	Santi
				Art Unit	Unassigned
				Examiner Name	Unassigned
Sheet	2	of	3	Attorney Docket Number	020547-003700US

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	AG	BALDINO, F., "High Resolution In Situ Hybridization Histochemistry," <u>Methods in Enzymology</u> , 168:761-777 (1989).	
	AH	BRESLAUER et al., "Predicting DNA Duplex Stability from the Base Sequence," <u>PNAS</u> , 83(11):3746-3750 (1986).	
	AI	BROADHURST, R. W., "The Structure of Docking Domains in Modular Polyketide Synthases," <u>Chemistry & Biology</u> , 10:723-731 (2003).	
	AJ	BU et al., "DNA Builder: A Program to Design Oligonucleotides for the PCR Assemble of DNA Fragments," Center for Biomedical Inventions, University of Texas Southwestern Medical Center (2002).	
	AK	CANE et al., "Harnessing the Biosynthetic Code: Combinations, permutations, and Mutations," <u>Science</u> , 282:63-68 (1998).	
	AL	CHALMERS et al., "Scaling Up the Ligase Chain Reaction-based Approach to Gene Synthesis," <u>Biotechniques</u> , 30(2):249-252 (2001).	
	AM	CHAMBERS et al., "High-level generation of polyclonal antibodies by genetic immunization," <u>Nature Biotechnology</u> , 21(9):1088-1092 (2003).	
	AN	CHE, A., "The BioBricks++ Assembly Scheme," February 9, 2004.	
	AO	CHE, A., "Formalizing Modular Assembly Systems," March 17, 2003.	
	AP	CHEN et al., "Universal Restriction Site-Free Cloning Method Using Chimeric Primers," <u>BioTech</u> , 32(3):516-520 (2002).	
	AQ	EWING, B., "Base-Calling of Automated Sequencer Traces Using <i>Phred</i> . II. Error Probabilities," <u>Genome Research</u> , 8:186-194 (1998).	
	AR	EWING et al., "Base-Calling of Automated Sequencer Traces Using <i>Phred</i> I. Accuracy Assessment," <u>Genome Research</u> , 8:175-185 (1998).	
	AS	GOKHALE et al., "Dissecting and Exploiting Intermodular Communication in Polyketide Synthases," <u>Science</u> , 284:482-485 (1999).	
	AT	GORDON et al., "Consed: A Graphical Tool for Sequence Finishing," <u>Genome Research</u> , 8:195-202 (1998).	
	AU	GORDON, D., "Automated Finishing With Autofinish," <u>Genome Research</u> , 11:614-625 (2001).	
	AV	HOOVER et al., "DNA Works: An Automated Method for Designing Oligonucleotides for PCR-Based Gene Synthesis," <u>Nuc. Acids Res.</u> , 30(10):e43, 7 pages total (2002).	

Examiner Signature		Date Considered	
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Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Complete if Known	
				Application Number	10/820,975
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Sheet	3	of	3	Attorney Docket Number	020547-003700US

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	AW	KNIGHT, T., "Idempotent Vector Design for Standard Assembly of Biobricks," MIT Artificial Intelligence Laboratory.		
	AX	LONGDEN et al., "EMBOSS: The European Molecular Biology Open Software Suite," <u>Trends in Genetics</u> , 16(6):276-277 (2000).		
	AY	PFEIFER et al., "Biosynthesis of Polyketides in Heterologous Hosts," <u>Microbiology and Molecular Biology Reviews</u> , 65(1):106-118 (2001).		
	AZ	RANGANATHAN et al., "Knowledge-Based Design of Bimodular and Trimodular Polyketide Synthases Based on Domain and Module Swaps: A Route to Simple Statin Analogues," <u>Chemistry & Biology</u> , Research Paper, 6(10):731-741 (1999).		
	BA	RASHTCHIAN et al., "Uracil DNA Glycosylase-Mediated Cloning of Polymerase Chain Reaction-Amplified DNA: Application to Genomic and cDNA Cloning," <u>Anal. Biochem.</u> , 206:91-97 (1992).		
	BB	STEMMER et al., "Single-Step Assembly of a Gene and Entire Plasmid From Large Numbers of Oligodeoxyribonucleotides," <u>Gene</u> , 164:49-53 (1995).		
	BC	WITHERS-MARTINEZ et al., "PCR-Based Gene Synthesis as an Efficient Approach for Expression of the A+T-rich Malaria Genome," <u>Protein Eng.</u> , 12(2):1113-1120 (1999).		
	BD	WU et al., "Analysis of the Molecular Recognition Features of Individual Modules Derived from the Erythromycin Polyketide Synthase," <u>J. Am. Chem. Soc.</u> , 122(20):4847-4852 (2000).		
	BE	WU et al., "Quantitative Analysis of the Relative Contributions of Donor Acyl Carrier Proteins, Acceptor Ketosynthases, and Linker Regions to Intermodular Transfer of Intermediates in Hybrid Polyketide Synthases," <u>Biochemistry</u> , 41(15):5056-5066 (2002).		
	BF	WU et al., "Assessing the Balance Between Protein-Protein Interactions and Enzyme-Substrate Interactions in the Channeling of Intermediates Between Polyketide Synthase Modules," <u>J. Am. Chem. Soc.</u> , 123(27):6465-6474 (2001).		

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